

ALTA GEOSCIENCES, Inc.

11711 Northcreek Parkway S., Suite 101
Bothell, Washington 98011-8224

Phone (206) 485-1053
Fax (206) 486-7651

January 31, 1997

Mr. Kevin Rochlin
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue, HW-113
Seattle, Washington 98101

4.1

Re: Laboratory Analysis Reports - Solidified Soil
Spokane Junkyard and Associated Properties Superfund Site

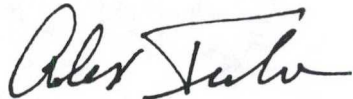
Dear Mr. Rochlin:

Enclosed are copies of the Laboratory Analysis Reports for the solidified soil from the Spokane Junkyard and Associated Properties Superfund Site Removal Action Construction. These reports are from North Creek Analytical, which performed the TCLP analyses, and from Positive Lab Service, which performed the MWEF analyses. These results have been previously reported to you.

This document is submitted on behalf of Inland Power & Light, Kaiser Aluminum & Chemical Corporation, and The Washington Water Power Company, as required by the Administrative Order On Consent for Removal Site Evaluation, Engineering Evaluation/Cost Analysis, Treatability Study, Removal Action Design and Non-Time Critical Removal Action.

If you have any questions, please feel free to contact me at your earliest convenience.

Sincerely,
ALTA Geosciences, Inc.



Alex Tula, R.G.
Principal Consultant

enclosure: Laboratory Analysis Reports

cc: Mr. Bud Preston; Kaiser Aluminum & Chemical Corporation
Mr. Doug Pottratz; The Washington Water Power Company
Mr. Grant Van Buren; Inland Power
R. Paul Beveridge, Esq.; Heller, Ehrman, White, & McAuliffe (w/o enclosure)
Mark Hausman, Esq.; Attorney at Law (w/o enclosure)
David A. Kulisch, Esq.; Randall & Danskin, PS (w/o enclosure)

ROCL0206.DOC

4.1



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NORTH CREEK ANALYTICAL

Environmental Laboratory Services

Offices:

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Correspondence to: 18939 - 120th Ave. NE, #101, Bothell, WA 98011

Alta Geoscience
11711 North Creek Parkway
Bothell, WA 98011-8224

Project: Spokane Junkyard and Associated Properties
Project Number: none
Project Manager: Alex Tula

Sampled: 10/11/96
Received: 11/8/96
Reported: 11/18/96

Project Summary

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
SS-03-1103	S611037-03	Soil	10/11/96
SS-09-1109	S611037-08	Soil	10/11/96

North Creek Analytical, Inc.


Camilla Kane, Project Administrator



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Alta Geoscience 11711 North Creek Parkway Bothell, WA 98011-8224	Project: Spokane Junkyard and Associated Properties Project Number: none Project Manager: Alex Tula	Sampled: 10/11/96 Received: 11/8/96 Reported: 11/18/96
------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------	--------------------------------------------------------------

TCLP Metals by EPA 1311/6010/7000 Series Methods

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
<u>SS-03-1103</u> Lead	1160044	11/14/96	11/14/96	<u>S611037-03</u> EPA 1311/7420	0.300	ND	<u>Soil</u> mg/l (ppm)	
<u>SS-09-1109</u> Lead	1160044	11/14/96	11/14/96	<u>S611037-08</u> EPA 1311/7420	0.300	ND	<u>Soil</u> mg/l (ppm)	

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TCLP Metals by EPA 1311/6010/7000 Series Methods Quality Control

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1160044										
Blank										
Lead	11/14/96			ND	Soil mg/l (ppm)	0.300				
Blank Spike										
Lead	11/14/96	1.00		0.970	Soil mg/l (ppm)	57.4-130	97.0			
Duplicate										
Lead	11/14/96		S611047-02 0.560	0.750	Soil mg/l (ppm)			20.0	29.0	1
Matrix Spike										
Lead	11/14/96	1.00	S611047-02 0.560	1.75	Soil mg/l (ppm)	75.0-125	119			
Matrix Spike Dup										
Lead	11/14/96	1.00	S611047-02 0.560	1.70	Soil mg/l (ppm)	75.0-125	114	20.0	4.29	

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Notes

#	Note
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1	RPD values are not controlled at concentrations of less than ten times the reporting limit.
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CHAIN OF CUSTODY REPORT

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992

East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290

9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

Work Order # **SL611037**

REPORT TO:			INVOICE TO:			TURNAROUND REQUEST in Business Days *											
ATTENTION: Alta Geosciences			ATTENTION: Alta			<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> Same Day											
ADDRESS: 11711 Northcreek Parkway S. # 101			ADDRESS:			<input type="checkbox"/> Standard <input type="checkbox"/> 5 <input type="checkbox"/> 3-4 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> Same Day											
Bothell, WA 98011																	
PHONE: 206-485-1053 FAX: 206-486-7651			P.O. NUMBER:			NCA QUOTE #:											
PROJECT NAME: Spokane Junkyard			TCLP Lead														
PROJECT NUMBER:																	
SAMPLED BY:																	
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)			MATRIX (W, S, A, O)	# OF CONTAINERS	COMMENTS									
1. SS-11-1111		10/12 2:00	SL611037-9	<input checked="" type="checkbox"/>		S	1										
2. SS-12-1112		10/12 2:15	-10			S	1										
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	
RELINQUISHED BY (Signature): Mark T. Ott			DATE: 10/12/16			RECEIVED BY (Signature): Jeff Hazen			DATE: 10/12/16								
PRINT NAME: Mark T. Ott			FIRM: ALTA			TIME: 2:30			PRINT NAME: Jeff Hazen			FIRM: Budinger			TIME: 2:15		
RELINQUISHED BY (Signature): Jeff Hazen			DATE: 11/18/16			RECEIVED BY (Signature): Camille Kian			DATE:								
PRINT NAME: Jeff Hazen			FIRM: Budinger			TIME: 1:30			PRINT NAME: Camille Kian			FIRM: HLAS			TIME: 1:30		
ADDITIONAL REMARKS:												PAGE 2 OF 2					



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Work Order # **SL11037**

REPORT TO:			INVOICE TO:										TURNAROUND REQUEST in Business Days *					
ATTENTION: ALTA GEOSCIENCES			ATTENTION: ALTA										<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> Same Day					
ADDRESS: 11711 Northcreek Parkway S. Suite 101 Bothell, WA 98011			ADDRESS:										<input type="checkbox"/> Standard <input type="checkbox"/> 5 <input type="checkbox"/> 3-4 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> Same Day					
PHONE: 206 485-1053 FAX: 206-486-7651			P.O. NUMBER: NCA QUOTE #:										OTHER Specify:					
PROJECT NAME: SPOKANE JUNKYARD			<div style="writing-mode: vertical-rl; transform: rotate(180deg);">TECUP LEAD</div>										* Turnaround Requests less than standard may incur Rush Charges.					
PROJECT NUMBER:													MATRIX (W, S, A, O)			# OF CONTAINERS		COMMENTS
SAMPLED BY: Mark Otter																		
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)																
1. SS-01-1101	10/10/96 8:00 PM	SL11037-01	<input checked="" type="checkbox"/>										S	1				
2. SS-02-1102	10/10/96 8:10 PM	02	<input checked="" type="checkbox"/>										S	1				
3. SS-03-1103	10/11/96 11:30	03	<input checked="" type="checkbox"/>										S	1				
4. SS-04-1104	10/11/96 11:48		<input checked="" type="checkbox"/>										S	1				
5. SS-05-1105	10/11 2:00	04	<input checked="" type="checkbox"/>										S	1				
6. SS-06-1106	10/11 2:00	05	<input checked="" type="checkbox"/>										S	1				
7. SS-07-1107	10/11 5:30	06	<input checked="" type="checkbox"/>										S	1				
8. SS-08-1108	10/11 5:40	07	<input checked="" type="checkbox"/>										S	1				
9. SS-09-1109	10/12 11:00	08	<input checked="" type="checkbox"/>										S	1				
10. SS-10-1110	10/12 11:10		<input checked="" type="checkbox"/>										S	1				
RELINQUISHED BY (Signature): Mark I Otter			DATE: 10/12/96		RECEIVED BY (Signature): Jeff Hazen					DATE: 10/12/96								
PRINT NAME: Mark Otter			FIRM: ALTA		TIME: 11:30		PRINT NAME: Jeff Hazen			FIRM: Burlington		TIME: 11:30						
RELINQUISHED BY (Signature): Jeff Hazen			DATE: 11/8/96		RECEIVED BY (Signature): Camilla Kane					DATE: 11/8/96								
PRINT NAME: Jeff Hazen			FIRM: Burlington		TIME: 1307		PRINT NAME: CAMILIA KANE			FIRM: HPA		TIME: 1307						
ADDITIONAL REMARKS: * Canceled per J. Hazen 11/8/96 1400.00																		

SAMPLES SS-04-1104 & SS-10-1110 Shipped to Positive Lab Service (213-745-5322) **CRK**

TIVE SERVICE

781 East Washington Blvd., Los Angeles, CA 90021
(213) 745-5312 FAX (213) 745-6372

Los Angeles, CA 90021
2 FAX (213) 745-6372

12/02/96

MDL

ek Parkway
011

23501 Collector: Client
/96 Sampling Date & Time: 10/11/96, 1140
Method: Submitted By Client

ENT	METHOD	RESULT	UNIT	MDL
/Date	SW-924	11/26/96		
		11/27/96		
MWEP	EPA 6010	0.12	mg/l	0.01 mg/l

23502 Collector: Client
/96 Sampling Date & Time: 10/12/96, 1110
Method: Submitted By Client

ENT	METHOD	RESULT	UNIT	MDL
/Date	SW-924	11/26/96		
		11/27/96		
MWEP	EPA 6010	1.5	mg/l	0.01 mg/l

23503 Collector: ****
/96 Sampling Date & Time: **/**/, ****
Method: ****

ENT	METHOD	RESULT	UNIT	MDL
/Date	SW-924	11/26/96		
		11/27/96		
MWEP	EPA 6010	ND	mg/l	0.01 mg/l

[ND = None Detected; MDL = Method Detection Limit]

63201235

63201235

December 2, 1996

QUALITY CONTROL DATA
PLS

CLIENT: Alta GeoSciences
FILE NO: 73188
REPORT NO: 63201235
MATRIX: Soil
METHOD: EPA 6010-MWEP
LAB NO: 6320123501
BATCH NO: 63316010-MWEP
DATE EXTRACTED: 11/26/96
DATE ANALYZED: 11/27/96

<u>PARAMETER</u>	<u>SAMPLE RESULTS</u> <u>(mg/l)</u>	<u>AMOUNT SPIKED</u> <u>(mg/l)</u>	<u>AMOUNT RECOVERED</u> <u>(mg/l)</u>	<u>% REC</u>	<u>SPIKE RECOVERY ACCEPTANCE RANGE(%)</u>
Lead (PLS)	0.12	0.5	0.62	100	70-130

R.P.D. = Relative Percent Difference
ND = None Detected
PLS = Post Leaching Spike

1 WEEK 1H1

MWEP Lead



New File #73188 LB#

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Work Order #

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BOTHELL, WA 98011																																			
PHONE: 206-485-1053 FAX: 206-486-7651			P.O. NUMBER: NCA QUOTE #:																																
PROJECT NAME: SPOKANE Junkyard			Analysis Request:																																
PROJECT NUMBER:																																			
SAMPLED BY: MARK OTTEN																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr> <td>1. SS-04-1104</td> <td>10/1/96 11:40</td> <td></td> </tr> <tr> <td>2. SS-10-1110</td> <td>10/2/96 11:10</td> <td></td> </tr> <tr><td>3.</td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td></tr> </tbody> </table>						CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	NCA SAMPLE ID (Laboratory Use Only)	1. SS-04-1104	10/1/96 11:40		2. SS-10-1110	10/2/96 11:10		3.			4.			5.			6.			7.			8.			9.		
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8.																																			
9.																																			
10.																																			
			<div style="text-align: center;">TURNAROUND REQUEST in Business Days *</div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">10</div> <div style="font-size: 8px;">Standard</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">7</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">5</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">4</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">3</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">2</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="font-size: 8px;">Same Day</div> </div> </div> <div style="text-align: center; margin-top: 5px;"> <div style="border: 1px solid black; padding: 2px;">5</div> <div style="font-size: 8px;">Standard</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">3-4</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">2</div> </div> <div style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;">1</div> <div style="font-size: 8px;">Same Day</div> </div>																																

OTHER

Specify: _____

* Turnaround Requests less than standard may incur Rush Charges.

These samples received via Jeff Hagen. Work Order #5